

REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 1-32 are currently pending in this application.

Regarding Typographical Corrections in the Specification

Revisions were made to page 41 of the specification to correct typographical errors discovered upon review of the application.

Regarding the 35 U.S.C. § 112, Second Paragraph, Rejection

Claim 9 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. More specifically, the Patent Office states that the word “them” in this claim lacks insufficient antecedent basis. This claim has been amended in this Response to clarify the clause in question. Accordingly, Applicant respectfully requests that the 35 U.S.C. § 112 rejection be withdrawn.

Regarding the 35 U.S.C. § 102 Rejection

Claims 1-29 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,785,21 to Immerman et al. (referred to below as “Immerman”). Applicant respectfully traverses this rejection for the following reasons.

The Office Action relies principally on cols. 5 and 6 of Immerman in rejecting most of the independent claims in the above-captioned application. That portion describes a local run time model 90. The local run time model 90 provides an API object model that allows a third party application access to data, security, and logic models of an object-oriented database (col. 5, lines 23-26). The local run time model 90 comprises a

1 hierarchy of models including object data store model 92, security model 96, indexing
2 model 98, replication model 94, agent workflow model 99 and mail model 97 (col. 5,
3 lines 31-41). The data store model 92 specifies the level of access that users and servers
4 have to data elements (col. 5, lines 53-58), the security model 96 provides a collection of
5 log-in credentials (col. 5, line 66), the indexing model 98 provides a search index which
6 administrators and database managers may apply to databases and files (col. 6, lines 15-
7 19), the replication model 94 provides a series of rules describing how to organize and
8 synchronize databases (col. 6, lines 25 and 26), the agent workflow model 99 implements
9 the execution of an agent (col. 6, lines 42 and 43), and the mail model 97 provides rules
10 for forwarding information from one object data store location to another (col. 6, lines 50
11 and 51). In this hierarchy, “the design of a parent model is a prerequisite to the design of
12 a child model” (col. 5, lines 47 and 48). Immerman provides an example of what this
13 means, by stating that the “security model 96 is a prerequisite to mail model 97 in the
14 sense that mail model 97 must provide for verification of the identity of users accessing
15 mail model 97 with respect to a data object” (col. 6, lines 53-57). Fig. 2 shows the
16 specific design dependencies of the above-identified models.

17 In marked contrast, independent claim 1 recites a server system, comprising one
18 or more computers, an application executing on the computers to receive and process
19 client requests, and a constraint system. The constraint system constrains operation of
20 the application according to multiple different constraints. The constraint system further
21 comprises a hierarchy of constraint layers, with each constraint layer containing a set of
22 one or more constraints that customize operation of the application.

23 Immerman does not disclose or suggest a constraint system which constraints the
24 operation of an application according to multiple different constraints, wherein the
25 constraint system comprises a hierarchy of constraint layers, with each constraint layer

1 containing a set of one or more constraints that customize operation of the application. In
2 citing columns 5 and 6 of Immerman, the Patent Office is apparently of the opinion that
3 the model hierarchy shown in Fig. 2 has a bearing on the claimed constraint system
4 having a hierarchy of constraint layers. But, as summarized above, that hierarchy merely
5 illustrates the design dependencies of different components of the local run time model
6 90; for example, the security model 96 is a prerequisite to mail model 97 in the sense that
7 the mail model 97 must provide for verification of the identity of users accessing mail
model 97 with respect to a data object. The models *do not* pertain to a constraint system
which *constrains or customizes the operation of an application* as claimed. More
specifically, the various models (92, 94, 96, 97, 98, 99) in Fig. 2 do not constrain or
customize the operation of the local run time model 90, but rather the models *make up (or*
comprise) the model 90 itself (see col. 5, lines 31-41). That is, the models are integral
parts of the local run time model 90, rather than constraints on some other, pre-existing
and independent, application. To make an analogy, a bicycle is composed of two wheels
and a frame. It is improper to say that the wheels and the frame constrain or customize
the operation of that bicycle, because the wheels and the frame are simply integral parts
of what makes a bicycle a bicycle, and there is, properly speaking, no bicycle to constrain
or customize without these parts.

19 It is noted the local run time model 90 provides an API object model that allows a
20 third party application access to data, security, and logic models of an object-oriented
21 database (col. 5, lines 23-26). However, the models shown in Fig. 2 also can not be
22 properly construed as constraining or customizing the operation of the third party
23 application. In col. 5, lines 23-26, Immerman is referring to a conventional separation of
24 high-level code from low-level code, where the low-level code executes instructions on
25 behalf of the high-level code. But these layers *interact* with each other rather than

1 constrain or customize each other; namely, the low-level code does not constrain or
2 customize the operation of the high-level code, nor does the high-level code constrain or
3 customize the operation of the low-level code.

4 For the above reasons, the Applicant respectfully submits that Immerman neither
5 discloses nor suggests the subject matter recited in claim 1.

6 Claims 2-8 depend from claim 1, and are therefore allowable for at least this
7 reason. Moreover, each of these claims recites additional features which are not
8 disclosed in, or suggested by, Immerman.

9 For instance, claims 2-6 recite details of different constraint layers in the
10 constraint hierarchy. Namely, claim 2 recites that the hierarchy comprises a constraint
11 layer that contains legally mandated constraints to constrain operation of the application
12 according to legal principles. Claim 3 recites that the hierarchy comprises a constraint
13 layer that contains company-mandated constraints to constrain operation of the
14 application according to preferences of a company that operates the application. Claim 4
15 recites that the hierarchy comprises a constraint layer that contains customer constraints
16 to constrain operation of the application according to preferences of customers. Claim 5
17 recites that the hierarchy comprises a constraint layer that contains cultural constraints to
18 constrain operation of the application according to cultural aspects. And claim 6 recites
19 that the hierarchy comprises a constraint layer that contains end user constraints to
20 constrain operation of the application according to preferences of an end user.

21 To repeat, Immerman's Fig. 2 shows an object data store model 92, a security
22 model 96, an indexing model 98, a replication model 94, an agent workflow model 99
23 and a mail model 97. These models have no bearing on the claimed constraint layers that
24 contain *legally mandated constraints, company-mandated constraints, customer*
25 *constraints, cultural constraints and end user constraints.*

1 In rejecting these dependent claims, the Office Action also cites col. 10, line 30 to
2 col. 11, line 28 of Immerman, as well as col. 18, line 59 to col. 19, line 62 of Immerman.
3 The excerpt in cols. 10 and 11 refers to an ID policy database 114 and an ID repository
4 database 111. The excerpt in cols. 18 and 19 refers to a configuration document 232
5 having tabbed pages for basics tab 380, services tab 384, schedule tab 390, and rules tab
6 400. This excerpt also describes an offline security policy form 410, an application page
7 238, web control 241, and various other components 246-258. First, these topics do not
8 appear to have anything to do with the constraint layers recited in claims 2-6, namely,
9 constraint layers pertaining to *legally mandated constraints, company-mandated*
10 *constraints, customer constraints, cultural constraints and end user constraints*. For
11 example, the words “legal” and “cultural” do not appear anywhere in the Immerman
12 document. Second, even if, assuming *arguendo*, that the information disclosed in these
13 excerpts had some relevance to the claimed constraint layers, Immerman does not
14 describe that this information is arranged in a *constraint hierarchy* (as recited in claim 1).

15 Dependent claim 7 recites that the constraint layers are organized within the
16 hierarchy such that a first constraint layer limits a second constraint layer but the second
17 constraint layer does not limit the first constraint layer. As described above, Immerman’s
18 Fig. 2 refers to design prerequisites (that is, one component must be built for another
19 component to work properly), rather than constraints in the context of the claimed
20 invention.

21 Dependent claim 8 recites that the server system (of claim 1) further comprises a
22 constraint resolver to resolve the constraint layers so that operation of the application is
23 constrained by a sum of the constraints in the layers. Immerman discloses that the
24 different models shown in Fig. 2 comprise the local run time model 90. There is
25 absolutely no hint in Immerman that these models might conflict with each other. Hence,

1 there is likewise no suggestion that Immerman's system includes a constraint resolver to
2 cope with such conflicts.

3 Based on at least the above reasons, the Applicant respectfully submits that
4 Immerman neither discloses nor suggests the subject matter recited in dependent claims
5 2-8.

6 The remaining claims (9-29) recite subject matter that is related to various
7 permutations of the above-discussed subject matter (in claims 1-8). Therefore these
8 claims are allowable for reasons that are related to those given above. In addition, these
9 claims recite additional subject matter which is not disclosed or suggested in Immerman.

10 Consider, for instance, independent claim 9. This claim recites, in part, a multi-
11 layer application comprising a problem-solving logic layer and a presentation layer. The
12 claim also recites a constraint hierarchy of multiple constraint layers, each constraint
13 layer containing a set of one or more constraints that specify how the replies should be
14 structured to customize the replies for specific sets of conditions. The Office Action
15 again relies, in part, on cols. 5 and 6 of Immerman, but Fig. 2 of Immerman in no way
16 discloses or suggests a problem-solving logic layer and a presentation layer.
17 Furthermore, Immerman in no way discloses or suggests a constraint hierarchy of
18 multiple constraint layers, each constraint layer containing a set of one or more
19 constraints *that specify how the replies should be structured to customize the replies for*
20 *specific sets of conditions.* The hierarchy shown in Fig. 2 is used to construct the local
21 run time model 90, not to customize replies.

22 As another example of the deficiency of the Immerman reference, claim 10
23 (which depends on claim 9), recites that the constraint layers can be selectively added or
24 removed from the constraint hierarchy independently of other layers in the multi-layer
25 application to produce different sets of constraints. In Immerman's Fig. 2, certain models

1 are prerequisites of others, indicating that these models cannot be added or moved
2 independently of each other.

3 For at least the above exemplary reasons, the Applicant submits that Immerman
4 does not anticipate any of claims 1-29, and respectfully requests that this rejection be
5 withdrawn. Namely, as stated in MPEP § 2131, a claim is anticipated only if each and
6 every element as set forth in the claim is found, either expressly or inherently described,
7 in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2
8 USPQ2d 1051 (Fed. Cir. 1987). Since Immerman does not set forth each and every
9 feature, it fails to anticipate the claims under § 102. Moreover, for the reasons stated
10 above, Immerman discloses a very different system than the claimed invention, and
11 therefore also does not render the claims obvious under 35 U.S.C. § 103.

12 In any event, if Immerman is again applied against the claims in some form, the
13 Patent Office is respectfully requested to more precisely point out the features of this
14 reference that are being relied upon, preferably by identifying the reference numbers of
15 the features. It is currently not clear what *specific features* of Immerman are being
16 correlated with the elements of the pending claims. This will allow the Applicant to
17 better assist the Examiner in advancing this case to allowance.

18

19 *Regarding the Newly Added Claims*

20 The newly added claims, 30-32, depend from independent claim 1. These claims
21 are therefore allowable for at least the reasons given in connection with claim 1.
22 Moreover, the new claims recite subject matter which further distinguishes the claimed
23 invention over Immerman. Accordingly, the Applicant submits that claims 30-32 are
24 allowable over Immerman.

1 *Cross Reference to Commonly Assigned Applications*

2 The following commonly-assigned applications were filed on the same date as the
3 present application: 09/847,063; 09/847,037; 09/845,752; 09/845,751; 09/847,067;
4 09/845,737; 09/847,038; and 09/847,035

5 *Conclusion*

6 The arguments presented above are not exhaustive; Applicant reserves the right to
7 present additional arguments to fortify its position. Further, Applicant reserves the right
8 to challenge the alleged prior art status of one or more documents cited in the Office
9 Action.

10 All objections and rejections raised in the Office Action having been addressed, it
11 is respectfully submitted that the present application is in condition for allowance and
12 such allowance is respectfully solicited. The Examiner is urged to contact the
13 undersigned if any issues remain unresolved by this Amendment.

14 Respectfully Submitted,

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